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Factors affecting the costs of VET in schools: national overview and Victorian case study

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Contents

Executive Summary	1
Quality	2
1. Introduction	4
2. VETIS—its various forms, size and distribution	5
Organisation and modes of delivery	6
Growth and distribution of VETIS	7
Who are the VETIS students?	10
3. Costs of VET, senior secondary schooling and VETIS	12
4. Funding arrangements	16
5. The Victorian study	18
The VETIS programs: schools and TAFE	18
Large student numbers, specialist resources and school as RTO	23
Small student numbers and purchase from external RTO	24
Provision of counselling, tracking and managed pathways	24
Costs of SWL	25
Arrangements to offset costs	26
Who bears the costs?	26
Cost and funding options	27
Student fees	28
Quality and pastoral care	29
Additional funding or a changed funding model	29
6. Summing up [see earlier comments]	31
References	33
Appendix: Costs of VETIS and key learning areas in senior secondary schooling	34
Direct teacher cost	34
Other costs to the school	36

Tables

Table 1. Enrolments enrolled in VETIS programs, all sectors, and senior secondary students, Australia, 1997–2002	7
Table 2. VETIS enrolments, school Year 11 and 12 students, and AHC by State and Territory, 2002	8
Table 3. VETIS enrolments in Government and Catholic schools by ANTA industry group 2002	9
Table 4. VETIS enrolments, SWL and hours of SWL 2002	10
Table 5. Year 9 class of 1995 who completed Year 12 in 1998—participation in VETIS, Australia	11
Table 6. Operating expenses of government schools and VET, public funds, Australia, 2001 prices	13
Table 7. Enrolments in VET in Schools programs by industry groups, Australia 2002	14
Table 8. Funds provided specifically for VET in schools (excluding ECEF funds)	16
Table 9. Students in VETIS by provider and by level of course	19
Table 10. Student fees for VETIS Courses	20
Table 11. Examples of costs of off-the-job VETiS	21
Table A1 Some comparisons of key learning areas and VETIS, Government year 11 and 12 classes, Victoria 1996	35
Table A2 Predicted average teacher cost per student per year by Year 11 and 12 enrolment & by Key Learning Area, Government schools, Victoria 1996 \$	36
Table A3. Identified costs to a school of VETIS <i>excluding</i> direct teacher cost: examples for Victoria 1996, \$	37

Executive Summary

The main concern of this paper is with the costs of the provision of Vocational Education and Training in School (VETIS). VETIS has been introduced to enhance secondary education by improving its links to the labour force and further education and training. It is designed for all students but has been particularly attractive to those with lower levels of academic achievement and who may otherwise terminate their education early.

VETIS is seen as a very important option for secondary students and this has been emphasised in the National Goals for Schooling:

When students leave schools they should:

have employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning. (MCEETYA 1999 Goal 1.5)

The costs of VETIS are affected by the nature of the training provided under VETIS, the quality of the teaching and the workplace learning accompanying it. A major question is whether this can be accommodated within existing school budgetary arrangements or whether additional funding is needed not only in the development phase but also in the longer term.

To explore these issues the paper provides an overview of VETIS and its provision across States and Territories. This draws attention to the substantial variation in how the programs are operating in terms of the proportion participating, hours of training, the proportions taking Structured Workplace Learning (SWL), in the hours of SWL and in the industry areas in which training is provided:

- VETIS is provided to over 40 per cent of all students in years 11 and 12 but to over half in South Australia, Queensland and New South Wales and less than a third in Western Australia, Tasmania and Victoria.
- The hours of VETIS per student vary substantially, from over 300 hours per year in Queensland and Tasmania to less than 150 in New South Wales, South Australia and the ACT.
- The extent of SWL varies too: nearly 200 hours in Western Australia to less than 50 hours in South Australia, Northern Territory and New South Wales.
- Over 30 per cent of VETIS students in New South Wales were in tourism and hospitality but in no other State was the percentage over 20; in Queensland and South Australia about 20 per cent were in 'General Education and Training' where none were recorded in that area in New South Wales and Victoria.

VETIS is designed for all students but is taken disproportionately by those with lower levels of achievement. In 1998 37 per cent of students in the lowest achievement quartile in year 9 in 1995 had undertaken some VETIS compared with 13 per cent of those in the top quartile.

The paper notes the contrasting forms of organisation of VETIS for government schools in Victoria and New South Wales. In Victoria most of the decisions about how to provide VETIS are made at the school level, including whether to become a Registered Training

Organisation (RTO) or to purchase training from an external RTO. Additional government funds are provided to support the school.

In contrast in New South Wales it is the educational regions that become the RTO and the schools negotiate with them on provision of VETIS. Where students attend TAFE the school's staffing budget is reduced pro-rata and the Education Department funds the TAFE for the delivery.

Costs

To provide a benchmark for the costs of VETIS, the paper reviews the costs of government senior secondary schooling and the cost of publicly funded VET (i.e. TAFE). This shows that publicly funded senior secondary schooling is on average just as expensive as publicly funded VET. The question that follows is: why should VETIS then cost more than other senior secondary schooling? Why has it been necessary to provide additional funds for VETIS for support for the teaching of VETIS and for SWL?

The answer lies largely in how VETIS is provided. These issues are explored in a case study in Victoria. VETIS in, for example, Information Technology could be provided (without SWL) in some schools for much the same cost as other senior secondary school learning areas. If the school is able to free teacher resources from some other subject area when introducing VETIS then there should not be a sizeable cost problem—at least with the direct teaching costs of VETIS. If however the school has to maintain its existing provision of classes while it loses resources to an external RTO or provides an additional Year 11 or 12 class then a cost problem arises.

Three quarters of VETIS groups in the Victorian case study had less than 10 students. Schools had to provide for small groups or purchase the training from external providers. Some examples are presented of the costs involved and the government revenues for several VETIS programs. In every case the costs exceed the government revenues and the schools make up part of the gap by charging additional fees to the VETIS students.

Quality

One of the issues is whether schools can deliver VET programs to the same quality as TAFE and other RTOs. At the same time, schools doubt that TAFE institutes can provide the pastoral care and mentoring that schools in a smaller and more custodial environment see themselves as able to deliver. Against this, TAFEs see themselves as offering a more adult environment, and one, which is more appropriate for some students. Another quality issue is whether the pursuit of lower cost training leads to teaching methods inappropriate for the lower achieving students who are the majority of VETIS students.

The extent of the integration of SWL with the off-the job component needs scrutiny. Under VETIS arrangements external RTOs do not usually engage with SWL. The implications of this need further consideration.

Student fees have not been given much attention in previous studies of VETIS. They are substantial in Victoria. A student who left school and enrolled in TAFE would pay about a half to a third of the fee that is required for VETIS and could be eligible for exemption from most of the fee if they held a health card or were in receipt of the youth allowance. The median fee in VETIS is \$300 per year for courses purchased by the school from external

providers, in a third of programs \$400 or more, and \$500 or more in 10 per cent of programs. This is for a program that makes up about a fifth of a school year's program. In contrast the maximum fee that can be charged in a TAFE for a publicly supported VET program is \$1 per contact hour with the total fee not to exceed \$500 for a full-time full-year course.

The possible policy solutions to the cost problems are canvassed. These include reducing the number of programs to enlarge the size of the group of students engaged in a VETIS program to achieve economies of scale. This would reduce the options available to students unless a school was able to arrange with neighbouring schools to specialise in particular programs (though this is not an option in rural areas). Similarly there might be a case to limit SWL or to allocate it more strategically.

However if the provision of a range of VETIS options for students and SWL is considered important especially for those at risk of early leaving, then VETIS may continue to give rise to additional costs *for some if not many schools*. There may be a case for this to become an element of the formula funding of the budgets especially of rural schools and schools with low retention rates.

Changes can be made to the funding model. The method of funding used in New South Wales avoids the problems of student fees evident in Victoria. The system in New South Wales, whereby enrolments in TAFE pro rata reduce school staff funding, has encouraged schools to increase their own provision rather than send students to TAFE.

A broad proposal for the funding of all post compulsory education is that funding should be attached to students and follow them pro rata wherever they are enrolled. There are, however, some particular issues for small schools and for rural schools with a scheme of 'funds following the student'. Such schools may need additional help for VETIS and for programs designed to assist students most at risk of poor levels of learning and early leaving.

1. Introduction

The paper focuses on the costs of the provision of Vocational Education and Training in Schools (VETIS). VETIS has a number of objectives. It is designed to enhance secondary education in improving its links to the labour force and further education and training. It is designed for all students but has been particularly attractive to those with lower levels of academic achievement and who may otherwise be likely to terminate their education early. To provide a context for the consideration of the costs of VETIS the paper reviews expenditure on secondary education and on VET. It shows that publicly funded senior secondary schooling is on average as expensive as publicly funded VET. The question that follows is: if senior secondary schooling costs as much as VET why should VETIS then cost more than other senior secondary schooling? Why has it been necessary to provide additional funds for VETIS for support for the teaching of VETIS and for SWL?

To explore these issues the paper provides an overview of VETIS and the provision of structured workplace learning across States and Territories. This overview draws attention to the substantial variation in how the programs are operating: in hours of off-the-job training; in the proportions taking SWL; in the hours of SWL; and in the industry areas in which training is provided.

The cost problems for VETIS arise with the types of program, especially those requiring specialised equipment or small classes, the number of programs a school provides and the provision of SWL. For schools with relatively small enrolments at senior secondary level VETIS programs are likely to be provided for small groups and this is expensive.

One of the alternatives is for the school to send the students to an external RTO. The issue here for the school is the payment, or other form of transfer of resources, from the school to the RTO. If the school is able to free teachers and other resources when a student spends time at an external RTO there should not be a sizeable problem. If however the school has to maintain its existing provision of classes while it makes payment to the RTO then a cost problem will arise.

The possible policy solutions to the cost problems are canvassed. These include reducing the number of programs to enlarge the size of the group of students engaged in a VETIS program. This would reduce the options available to students unless a school was able to arrange with neighbouring schools to specialise in particular programs and this is not an option in rural areas. Similarly there is a case to limit SWL or to use it more strategically.

However if the provision of a range of options is considered important especially for those students likely to be at risk of early leaving, then VETIS may continue to give rise to additional costs for some schools. There may be a case for this to become an element of the funding of the budgets especially of rural schools and those with low retention rates.

2. VETIS—its various forms, size and distribution

What is VETIS

Vocational programs have always been provided in schools. In some States separate secondary schools were provided until the 1980s emphasising introductory training mainly for the trade areas. The 1990s saw the development of vocational provision in regular secondary schools in a range of modes. MCEETYA in 2001 endorsed the 'New Framework for Vocational Education in Schools'. This involves a range of elements including vocational learning and enterprise education. A more specific meaning is given to VETIS:

- VETIS refers to programs that are undertaken by school students as part of the senior secondary certificate and which provide credit towards a nationally recognised VET qualification within the AQF.
- The training that students receive reflects specific industry competency standards and is delivered by Registered Training Organisations (RTOs) or by the school in partnership with an RTO. Schools can also be RTO's according to the particular registration arrangement in each jurisdiction....
- VETIS programs increasingly provide opportunities for students to participate in structured workplace learning or on the job training...
- The skills students learn are subject to formal assessment by an RTO against the standards outlined in the Australian Quality Training Framework (AQTF) (MCEETYA 2003a Ch. 7).

School-based New Apprenticeships were introduced in 1998. The major distinction of a New Apprenticeship from regular VETIS is that it involves a formal training agreement with an employer and the student is paid a pro-rata wage for the on-the-job component of the New Apprenticeship.

Policy makers intend that the provision of VETIS should become even more widespread. Among the key *National Goals for Schooling* is the following:

When students leave schools they should:
have employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning.
(MCEETYA 1999 Goal 1.5)

The proportion of Year 11 and 12 students participating in VETIS has progressively increased to reach over 40 per cent during 2002. In addition, the number of students participating in structured workplace learning has also increased to over 60% of those students participating in VETIS. Not all VETIS involve SWL though the percentage is rising (around 60 per cent Australia wide in 2002).

Organisation and modes of delivery

It has to be recognised that there is a wide range of different modes of the organisation of delivery. Most VETIS involves an off-the job and an on the job component.

The very broad models for the off-the-job component include:

- the school or government school region as the RTO;
- the school purchasing delivery from an RTO; and
- the school undertaking part or all of the delivery under auspicing or partnership arrangements with an RTO.

Government schools and VETIS

The States differ considerably in the method of organising VETIS. Some States, especially Queensland, Western Australia, South Australia and the ACT have embedded VETIS within the curriculum of the school. This is in contrast with VETIS being provided in separate subjects in the schools or purchased or provided in partnership with an RTO. This is the basis of delivery in the other States and Territories.

Though both provide 'stand alone' VETIS there are great differences between New South Wales and Victoria in the organisation of VETIS in government schools. It is the contrast between a fairly centralised system of organisation compared with a very decentralised system.

In New South Wales:

- educational districts, not schools, have become RTOs;
- schools negotiate with districts on their provision of VETIS;
- ANTA and State funds are not provided to schools for the delivery of VETIS but to support the development of VETIS including considerable staff development;
- schools can arrange for TAFEs to deliver VETIS and to the extent they do the school has its staffing reduced *pro rata*;
- the school makes no payment to TAFE—this is handled directly by the Education Department; and
- no additional fees are charged to students taking VETIS.

In contrast, in Victoria:

- a school can decide whether to seek to be a RTO or to purchase VETIS from TAFEs or other RTOs;
- public VET institutions, mainly TAFE, can not count the VETIS students as regular profile funded students but must count them as fee for service students;
- the decision on provision of VETIS is very largely a decision of the individual school although there are examples of cluster decisions;
- ANTA and State funds are provided to schools on the basis of their need to purchase VETIS and the relative cost of VETIS programs (see Table 7 below);

- a school can decide on the number of programs it will offer, whether to make cooperative cluster arrangements with other schools; and
- a school can decide whether to charge additional fees to VETIS students.

Growth and distribution of VETIS

VETIS programs have been growing rapidly in Australia. Table 1 shows that in 2002 186,000 students were enrolled in Australia in VETIS compared with 419,000 full-time students in Years 11 and 12 of schooling. VETIS enrolments equal 44 per cent of Year 11 and 12 enrolments in secondary schools—though the proportion of students enrolled in VETIS would be somewhat less than this as some students take more than one VETIS program. Some jurisdictions also enable Year 10 students to participate in these arrangements. The overall rate has risen from 25 per cent in 1997.

The participation rates are highest in the government schools followed by the Catholic schools and the lowest rates are in the independent schools. All have experienced rapid growth.

Table 1. Enrolments enrolled in VETIS programs, all sectors, and senior secondary students, Australia, 1997–2002

	1997	1998	1999	2000	2001	2002
	'000	'000	'000	'000	'000	'000
VET in school enrolments						
Government schools	53	66	83	98	110	119
TAFE (nearly all in NSW)	24	25	23	16	15	17
Catholic schools	12	18	22	26	29	31
Independent schools	5	8	11	14	16	18
Total	94	117	139	154	170	186
Total school full-time students in Years 11 and 12 s						
Government	242	247	254	253	256	259
Catholic	80	83	85	86	87	89
Independent schools	59	61	64	65	68	70
Total	381	391	402	404	412	419
Total population aged 16 and 17	511	517	526	532	540	549
School VETIS as % of Year 11 and 12 enrolments						
	%	%	%	%	%	%
Government (including TAFE)	32	37	42	45	49	53
Catholic	15	22	26	30	33	35
Independent schools	9	14	17	22	23	25
Total	25	30	35	38	41	44

Source: Based on data in *MCEETYA 2003b*, *ABS Schools Australia*. There are detailed notes in the MCEETYA report on differences among States and Territories in their treatment of VETIS data.

Note: Since the students enrolled in more than one program are counted twice there could be some overestimation of the proportion of Year 11 and 12 students enrolled in VETIS.

On average students in VETIS undertake just over 200 hours of off-the job training though it varies from 111 hours in the South Australia to 309 in Queensland and 341 in Tasmania.

Table 2 shows these very large differences in the proportion of students seen to participate in VETIS and in hours devoted to VETIS.

- South Australia has the highest rate of participation—70 per cent— but the lowest hours per participant.
- Victoria has only 25 per cent participation but a quite high level of hours—250 per participant.
- In relation to its school population at Years 11 and 12, Victoria delivers nearly as many hours per student as New South Wales, where VETIS students take only 132 hours per year.
- Queensland with about 50 per cent of students in VETIS and over 300 hours per student clearly has the highest effort in VETIS.
- Tasmania has a low rate of participation but very high hours per participant so its effort is third behind Queensland and the Northern Territory.

Table 2. VETIS enrolments, school Year 11 and 12 students, and AHC by State and Territory, 2002

	VETIS Enrolments '000	Total Year 11 and 12 school enrolments '000	VETIS enrolments as % of Year 11 and 12 students	AHC '000	Average AHC per VETIS enrolment	Average AHC per year 11 and 12 student
NSW	64	127	51	8,494	132	67
VIC	26	106	25	6,520	250	61
QLD	51	87	59	15,657	309	181
SA	22	31	70	2,413	111	78
WA	14	45	30	2,324	171	52
TAS	3	11	29	1,055	341	100
NT	2	3	56	456	260	147
ACT	4	9	44	452	112	49
Australia	186	419	44	37,373	201	89

Source: Based on data from MCEETYA 2003 and ABS *Schools Australia 2002*

Note: AHC is annual hours curriculum

There are also considerable differences in the composition of what is delivered. Table 4 reports the distribution of VETIS by major industry groupings. Tourism and Hospitality, Computing and Business and Clerical and General Education and Training make up about 60 per cent of all enrolments. However 31 per cent of enrolments in New South Wales are in Tourism and Hospitality compared with 14 per cent in Queensland. Queensland has 20 per cent in Business and Clerical compared with 12-13 per cent in New South Wales and Victoria. Queensland has 20 per cent of its large VETIS enrolments in General Education and Training whereas zero enrolments are reported for New South Wales and Victoria in this category. Tasmania has a third of its enrolments in Community Services, Health and Education, nearly 10 times the national rate.

Victoria has an unusually high proportion in Arts, Entertainment, Sport & Recreation. Western Australia has twice the national rate in Engineering and Mining. Queensland too has an above average proportion in Engineering and Mining. These last two findings can reflect alignment with the special needs of those States but overall the great differences across the States and Territories seem to indicate differences in policies on the development of VETIS that are only to a small extent connected to labour force needs. It seems unlikely that much of the difference could be due to student preferences or to differences in the skill needs of the State and Territory economies.

Some of the implications for costs of the variation in distribution are discussed in the following section.

Table 3. VETIS enrolments in Government and Catholic schools by ANTA industry group 2002

	<i>NSW</i>	<i>VIC</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>TAS</i>	<i>NT</i>	<i>ACT</i>	<i>AUST</i>
CATEGORY A									
Arts, Entertainment, Sport & Recreation	2	21	4	7	6	10	18	8	6
Automotive	3	7	0	3	4	5	5	9	3
Building & construction	8	3	4	2	4	6	4	2	5
Community services, Health and Education	3	4	2	7	4	33	4	6	4
Finance, Banking & Insurance	0	0	0	0	0	0	0	0	0
Food processing	0	0	0	2	0	0	2	0	0
TCF & Furnishings	2	5	7	1	2	0	0	2	4
Communications	0	0	2	1	0	0	1	0	1
Engineering & Mining	4	4	8	4	12	2	7	2	6
Primary Industry	4	5	2	5	5	6	5	0	3
Process Manufacturing	0	0	1	0	0	0	0	3	0
Sales & Personal Services	10	1	0	4	1	8	6	2	4
Tourism & Hospitality	31	19	14	20	14	15	14	20	20
Transport & storage	0	0	0	0	1	0	0	0	0
Utilities	1	1	0	0	0	0	1	0	0
CATEGORY B									
Business & Clerical	13	12	20	10	24	14	12	9	16
Computing	19	18	13	15	11	1	10	35	15
Science Technical & Other	0	0	1	1	1	1	0	2	1
CATEGORY C									
General Education and Training	0	0	20	18	12	1	12	0	11
Not classified	0	0	3	0	0	0	0	0	1
TOTAL	100	100	100	100	100	100	100	100	100

Source: MCEETYA 2003b

Structured workplace learning

Most VETIS includes structured workplace learning (SWL). This may be organised by a school on its own or in cooperation with other organisations, often clusters of schools. For the majority of students the arrangements have been supported by Commonwealth funds through the Enterprise and Careers Education Foundation (ECEF), which is being absorbed into DEST from 1 October 2003.

Much VETIS involves structured workplace learning and the proportion is growing, exceeding 60 per cent in 2002. However the variation is large: 86 per cent in New South Wales to 7 per cent in the ACT. In two jurisdictions, New South Wales and Tasmania, structured workplace learning is mandatory. The States with the highest proportion of students in VETIS, South Australia and Queensland, have the lowest proportion on SWL. New South Wales with a quite high participation rate in VETIS also has the highest percentage on SWL. However New South Wales has the lowest hours of 35 per student on SWL. Queensland with only 35 per cent of its VETIS students on SWL has 80 hours per student on SWL, the second highest rate. But far ahead in hours is Western Australia with an extraordinarily high reported number of hours per student in SWL—194 or the equivalent of 5 weeks of full time work.

Table 4. VETIS enrolments, SWL and hours of SWL 2002

	<i>Students in VETIS '000</i>	<i>VETIS enrolments as % of Year 11 and 12 students</i>	<i>Students on SWL '000</i>	<i>Students on SWL as % of VETIS students</i>	<i>SWL Hours '000</i>	<i>Hours per student on SWL</i>
NSW	64.4	51	55.3	86	1,935.1	35
VIC	26.1	25	16.8	65	1,085.6	65
QLD	50.7	59	17.8	35	1,425.7	80
SA	21.8	70	7.2	33	314.1	43
WA	13.6	30	11.4	83	2,200.0	194
TAS	3.1	29	2.4	79	381.4	156
NT	1.8	56	1.2	67	42.1	36
ACT	4.0	44	0.3	7	15.9	56
Australia	185.5	44	112.4	60	7,399.9	66

Source: Based on MCEETYA 2003b, ABS 2003 4221.0 and Table 2 above.

Who are the VETIS students?

In consideration of the funds to be provided for VETIS the socio-economic composition of the student body is a relevant factor. VETIS students come from the whole range of ability and social backgrounds but nearly 40 per cent come from the lowest quartile by literacy and numeracy achievement at Year 9, and less than 15 per cent from the quartile with the highest achievement. About 25 per cent of students whose parents have only secondary education participate in VETIS compared with 14 per cent of those whose parents undertook higher education. About 27 per cent of those whose parents are manual workers took VETIS

compared with 14 per cent of the children of professional workers. Table 5 provides some of the national data.

**Table 5. Year 9 class of 1995 who completed Year 12 in 1998—
participation in VETIS, Australia**

	<i>% undertook some VETIS</i>
School achievement at Year 9	
Lowest quartile	37
Lower Middle	30
Upper Middle	19
Highest quartile	13
Parents education	
Secondary only	25
Trade technical	21
Higher education	14
Parents occupation	
Manual	27
Clerical	26
Managerial	17
Professional	14

Source: Fullarton 2001

3. Costs of VET, senior secondary schooling and VETIS

If VETIS programs cost the same to schools as other senior secondary programs or publicly funded VET then there would be no major financial implications. Several studies suggest that on average, VET in Schools programs do need more resources than the average Year 11 and 12 programs (Bluer *et al* 1997, Shah 1998, Ernst & Young 1999; Allen Consulting 2000, Burke *et al* 2000; Malley *et al* 2001).

A first matter for consideration is a benchmarking one: what is the average cost of senior secondary schooling per student and the average cost of TAFE. If this can be established then the costs of VETIS can be seen against the average costs of provision for the more traditional educational activities for young persons.

The main data on the average costs of schooling are provided by MCEETYA for government schools and DEST for non-government schools. MCEETYA provides data on the operating expenses of senior secondary schooling as well as for junior secondary schooling whereas for non-government schools only an average expenditure for all secondary schooling is available (MCEETYA 2001a, 2002).

Attention here is concentrated on the expenses of government schools for senior secondary students and the expenses of publicly funded VET programs.

Table 6 provides some basic comparative data. The data are averages for Australia and there are differences across States and Territories, although they are declining. Table 6 includes the estimated expenses per full-time student for senior secondary schooling. The data are the most recent released by MCEETYA, for 1999-00, but converted to 2001 price levels.

- The average expense of senior secondary schooling is shown to be nearly \$9,600 per student.

Table 6 also shows the estimated expenses per annual hour curriculum as estimated by ANTA (2002) from NCVER Financial Data (2002). For 2001 the estimate including student fees was \$12.42 per hour. For comparison with the schools data, fees were deducted from the total to give a figure of \$11.80 per hour. Estimates are provided on the annual total cost for 720 hours of training and for 800 hours—there appears to be considerable variation in the annual hours of full-time courses in VET.

- For 800 hours the average annual expense of VET is a little over \$9,400, very close to the expense of senior secondary schooling.

Differences in the methods of compiling the schools and VET financial data may affect these estimates. However, on the evidence available, there is not much difference in the average cost of provision of senior secondary schooling and full-time VET courses.

Table 6. Operating expenses of government schools and VET, public funds, Australia, 2001 prices

	\$ per annual hour curriculum (AHC)	Hours per full-time student	Total \$
Senior secondary schooling operating expenses per equivalent full-time student, 1999-00	na	na	9574
VET recurrent expenditure 2001	12.42	720	8942
	12.42	800	9936
VET recurrent expenditure 2001 less student fees (5% of public revenues)	11.80	720	8496
	11.80	800	9440

Source: MCEETYA 2002, ANTA 2002 Vol 3.

Notes:

- Schools. Adjusted to 2001 prices using the non-farm GDP deflator. Expenses are on accrual basis, which implies the inclusion of employer provisions and payments for superannuation, long service leave and redundancy, payroll tax, and depreciation and amortisation of non-financial capital. Full fee paying overseas students are included in the student count and expenditures. State payments for student transport are included. Some State allowances to students are included but they would be a very small fraction of the total. Commonwealth support for students such as Youth Allowances are excluded. Private expenditures from funds raised by schools are excluded (MCEETYA 2001b).
- VET: Under the definition used by ANTA Government recurrent expenditure equals: total operating expenditure less: fee for service revenue, ancillary trading revenue, other operating revenue, revenue from specific purpose Commonwealth funds, VET-in-schools funding, redundancy payments external to VET budgets, and skill centre capital revenues. This means that student fees and depreciation costs are included in the estimates of government recurrent expenditure. AHC are adjusted for invalid enrolments.

Within secondary schools there are differences in cost of delivery of different forms of learning such as English and Science. We have surprisingly little information on this. Bluer *et al* (1997) and Shah (1998), based on a study of Victorian government schools, addressed the teaching cost of various learning areas. Some of the major features of those studies are included in the Appendix to this paper. On simple class teaching costs it is the teaching of languages other than English (LOTE) that was easily the most expensive. The average class size for LOTE was only a little over 60 per cent of the average of all Year 11 and 12 classes. English and Mathematics had above average class sizes and Science and Health areas about the average. Where schools delivered VETIS its class size was about 88 per cent of the average, fairly close to that for subjects in the Arts area.

Relative costs by industry area

It is acknowledged that different fields of VET are more or less expensive to deliver, in some cases for reasons of occupational health and safety. Table 7 includes the cost relativities reported by ANTA and developed by its Unit Costs Working Party some years ago. It also includes, for comparison, Victorian rates¹. The relationship among the rates is somewhat

¹These are rates set for recovery of funds from TAFEs that do not deliver agreed training. The same set of prices is used for the allocation of funds under User Choice.

different in the ANTA and Victorian rates and the range is wider for Victoria. Engineering and Mining for example is 62 per cent higher than Business in the ANTA estimates and 73 per cent in the Victorian prices. Tourism and Hospitality is 39 per cent higher than Business in the ANTA list and 50 per cent higher in the Victorian prices².

Table 7. Enrolments in VET in Schools programs by industry groups, Australia 2002

	Student Enrolments	ANTA Cost relativities	Victoria TAFE Recovery Price (User Choice Price)
	%	Index	Index
Tourism and Hospitality	18	1.39	1.50
Computing	16	1.06	1.00
Business and Clerical	15	1.00	1.00
General Education and Training	13	1.08	na
Engineering and Mining	6	1.62	1.73
Arts Entertainment, Sport and Recreation	6	1.30	1.18
Building and Construction	4	1.47	1.77
Primary Industry	4	1.42	1.68
Sales and Personal Service	4	1.19	1.00
TCF and Furnishing	4	1.49	1.64
Community Services Health and Education	3	1.15	1.09
Other	7	na	na
Total	100	na	na

Source: MCEETYA 2002, ANTA 2002 p.152, Victoria website.

www.sofweb.vic.edu.au/voced/vetschls/circulars/TAFECosts2003.xls

Note: The ANTA cost relativities have been adjusted to set Business and Clerical to 1.00.

The ANTA cost relativities have been applied to the distribution of enrolments in the States and Territories shown earlier in Table 3. Considering the five largest states, Victoria and New South Wales had the highest cost mix of programs: 3 to 4 per cent more than in Western Australia, South Australia and Queensland.

These cost relativities largely relate to the costs that a TAFE institute might consider relevant to its delivery. The circumstances in a school may be substantially different because of a range of factors, especially related to provision for a small number of students, the possible need to purchase training from an RTO, and the requirement to organise SWL. These issues are considered in detail below.

Earlier Victorian research (Burke *et al* 2000) showed the extent of the additional cost could vary substantially according to:

- the number of students in each VETIS program (affected by the number of programs and the total senior enrolments in the school)

² Note that only some hospitality courses, including those involving food preparation, are treated at the rates shown.

- the type of VETIS program provided or arranged by a school
- whether the school is the RTO or purchases the training from an external RTO, and
- the extent of work placement.

The variation in the level of costs and in who bears the cost suggests that caution is needed in generalising from the few empirical studies that have been done to date.

These matters are considered in the case study in Section 5 but Section 4 first provides an overview of the sources of additional funding provided to support VETIS.

4. Funding arrangements

VETIS is financed by:

- the school, from its regular government or private funds,
- the school with additional funds specially provided by the government for VETIS;
- supporting agencies, especially the Commonwealth funded ECEF support for SWL;
- RTOs (non-school) in some circumstances in below-cost arrangements, from government funds;
- students and their families through additional fees; and
- employers.

Additional government funds for VETIS are provided through ANTA, through ECEF and by the State and Territory governments. ANTA provided \$20 million for Australia per year 1997 to 2001 to support the expansion of VETIS and this level of funding was continued for the 2002-2004 period with indexation. Table 6 shows ANTA funding and some approximate data for State and Territory additional funding.

Table 8. Funds provided specifically for VET in schools (excluding ECEF funds)

	<i>ANTA</i>				<i>State and Territory allocation to VETIS (around 2000)</i>
	<i>Total</i>	<i>Distribution among sectors</i>			
		Government	Catholic	Independent	
	<i>\$'000</i>	<i>\$'000</i>	<i>\$'000</i>	<i>\$'000</i>	<i>\$'000</i>
<i>NSW</i>	5,959	3,793	1,405	761	24,000 per year
<i>VIC</i>	4,558	2,725	1,001	831	4,700 (2002)
<i>QLD</i>	3,636	2,283	701	651	9,100 (1999)
<i>SA</i>	1,731	1,119	317	296	4,500 (1999-2000)
<i>WA</i>	2,162	1,393	417	353	3,700 (over 4 years)
<i>TAS</i>	772	591	101	79	3,000 (1996-1999)
<i>NT</i>	534	418	59	58	na
<i>ACT</i>	648	451	135	62	na
<i>TOTAL</i>	20,000	12,772	4,136	3,092	na

ANTA 2001, Allen Consulting 2000.

The ANTA funds are allocated among the school sectors according to the enrolments in Years 11 and 12 in those sectors. Since the Catholic and especially the Independent schools have a much lower rate of participation in VETIS this means they receive more Commonwealth funds per VETIS student than do government schools. On the other hand the State and Territory funds are concentrated on government schools. In Victoria, for example, in 2002 State and ANTA funds represented nearly \$400 per VETIS student in government schools and just over \$200 per VETIS student in non-government schools.

Some States also provide funds under User Choice for part-time apprenticeships and traineeships in schools. These are not discussed further in this paper.

States provide other programs that give some support for VETIS students and also for other students with special needs. School budgets include funds for special learning needs (SLN) targeted at those students whose readiness to learn is impaired for a range of reasons including prior educational experiences and family or other personal circumstances. The extent to which SLN or other school budget funds could be used to support VETIS is a matter for the broader review of the funding of post-compulsory education.

Support for SWL

The Commonwealth through the ECEF provided \$13.8 million to support SWL in 2002-03 (Nelson 2003). It supported about 70,000 work placements—or about 60 per cent of all work placements shown earlier in Table 4. This \$13.8 million represents about \$200 per work placement for which support was provided. The support is through cluster or other group arrangement and differs across States. Included in the ECEF funding is support for a program for Indigenous students and for the disabled.

Private contributions

As will be considered below, in Victoria considerable payments have been made by students and their families to participate in VETIS.

Employers make considerable contributions to VETIS mainly by cooperating with the provision of structured workplace learning. This is even harder to estimate than the amount paid by families.

5. The Victorian study

Some additional funds and access to both school and TAFE data on VETIS were obtained in 2002 by undertaking a study for the Victorian South East Principals' Network and Chisholm Institute of TAFE. The CEET study reviewed VETIS and in particular:

- the factors giving rise to costs;
- the effects of different arrangements and funding on access and quality, and
- options on funding and costs.

The study considered:

- the operating costs of off-the-job training component of VETIS;
- an overview of the costs of SWL;
- the possibility of reducing or offsetting costs;
- who bears the costs, with particular attention to student fees, and
- some options on costs and funding

The VETIS programs: schools and TAFE

Some details of VETIS from the viewpoint of the largest external provider, Chisholm TAFE, are provided in Box 1: Some major features of the VETIS programs in five schools studied are given in Tables 9 to 11. These include enrolments by program, student fees, and the type of provider.

- Three quarters of the VETIS program groups had less than 10 enrolments.
- There were 20 different VETIS programs on offer in the five schools.
- The minimum number of programs a school provided was 7.
- The schools as RTOs provided some VETIS but most was purchased externally.
- Schools tended to be the RTO only for those programs that had sizeable enrolments and for which they had the staff and facilities.
- Private providers were as important as TAFE in providing VETIS for schools.
- There was a wide range of annual fees charged to VETIS students, ranging from \$50 (a common Year 11 and 12 subject fee) but many in the \$300 to \$450 range and one over \$1,000.
- Fees charged for the same program varied across schools quite substantially.
- The fees charged by schools are usually very much higher than the \$1 per hour tuition fee which TAFEs in Victoria have been permitted to charge to their publicly funded students (and TAFE must provide substantial to almost full exemption from fees for students with health cards or on youth allowance).

Table 9. Students in VETIS by provider and by level of course

<i>School</i>	<i>A</i>			<i>B</i>			<i>C</i>			<i>D</i>			<i>E</i>			
	<i>1st yr</i>	<i>2nd yr</i>	<i>Provider</i>	<i>1st yr</i>	<i>2nd yr</i>	<i>Provider</i>	<i>1st yr</i>	<i>2nd yr</i>	<i>Provider</i>	<i>1st yr</i>	<i>2nd yr</i>	<i>Provider</i>	<i>Yr 10</i>	<i>Yr 11</i>	<i>Yr 12</i>	<i>Provider</i>
<i>Certificates</i>																
Agriculture														1	1	Private
Arts/Multimedia							1	12	*	6	5	Another school		5	6	Private
Automotive	4		Private	5	1	CIT	7	4	*	3	2	CIT	4	12	12	School
Beautician		1	CIT													
Community Service				14	6	Private										
Clothing Design				14			9	9	*	2	6	Private				
Engineering								9	*	1		CIT	1	14	1	School
Food Processing/Wine								1	*							
Furnishing											1	CIT		38	9	School
General Construction				5	8	CIT		9	*	1	2	CIT				
Hairdressing		1	CIT													
Horse riding	1		Private													
Horse Studies/'Horse'				5		Melb Uni		2	*		2	Melb Uni	2	.	.	Private
Horticulture	1		Private	2		CIT				1		Another school				
Hospitality				22	14	0.5 school 0.5 Private	21	7	*	15	3	CIT + other school				
Information Technology		22	School	20	20	School							10	12	8	School
Laboratory Skills										2		CIT				
Music Industry/Music				3		Private		6	*							
Retail	2		Other TAFE			Private		9	*							
Sport/Recreation				5	1	CIT	7	3	*	11	6	CIT				

Note. There is some double counting within schools as some students are doing more than one VETIS program. Some data not available.

* Information not provided

Table 10. Student fees for VETIS Courses

School	<i>A</i>		<i>B</i>		<i>C</i>		<i>D</i>		<i>E</i>		
	<i>1st Year</i>	<i>2nd Year</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>1st Year</i>	<i>2nd Year</i>	<i>10</i>	<i>11</i>	<i>12</i>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Agriculture										450	450
Arts/Multimedia					390	390	300	300		455	455
Automotive	220		350	250	490	490	300	300	90	90	90
Beautician		200									
Community Service			155	155	290	240	300	300			
Clothing Design			50								
Engineering			350	300		540	400		90	90	90
Food Processing/Wine						440					
Furnishing								300		90	90
General Construction			400	350		740	500	300			
Hairdressing		1500									
Horse riding	800										
Horse Studies/'Horse'			100	100		140		300	350		
Horticulture	200		475								
Hospitality			170	400	440	775	500	300			
Information Technology		40	50	50							
Laboratory Skills											
Music Industry/Music			400			490					
Retail			50			50					
Sport/Recreation			450	450	530	680	300	300			

Note some double counting within schools as some students are doing more than one VETIS program.

Some data are missing from this tables due to the interviewee not having information readily available

Table 11. Examples of costs of off-the-job VETiS

Provider	Program and Year	Class size	Class substituted for regular VCE subject	Additional cost to school						Revenues					
				At school cost		Payment to provider			Total additional school cost	DET (including ANTA) funding				Student Fees	
					TAFE recovery price \$ per hour	80% TAFE recovery \$	Hours purchased	Total \$	\$	Per capita \$	Specialist Resource rate per hour \$	Hours funded	Total \$	Rate per student \$	Total \$
Schools as RTO				Registration as RTO, other AQTF compliance, Teacher PD \$2500 estimate each level											
	Info Tech Cert II Year 11	20	Yes		0	0	0	0	2,500	0	0	0	0	50	1,000
	Info Tech Cert II Year 12	20	Yes		0	0	0	0	2,500	0	0	0	0	50	1,000
TAFE as RTO delivering all off-the-job training				Liaison with TAFE \$1000 estimate											
	Automotive Year 11	5	No		9.5	7.6	205	7,790	8,790	80	4.75	160	4,200	350	1,750
	Automotive Year 12	1	No		9.5	7.6	195	1,482	2,482	80	4.75	195	1,006	250	250
TAFE as RTO delivering all off-the-job training				Liaison with TAFE \$1000 estimate											
	Horticulture	1	No		9.3	7.4	192	1,421	2,421	80	5.01	180	982	475	950
Private provider				Liaison with RTO \$1000 estimate per year level											
	Community services Year 11	14	No		6.0	4.8	120	8,064	9,064	80	3.48	120	6,966	155	2,170
	Year 12	6	No		6.0	4.8	120	3,456	4,456	80	3.48	120	2,986	155	930

Box 1: Some features of TAFE participation in VETIS: a TAFE college, 2002

Numbers

- TAFE Institute provides some VETIS for approximately 45 secondary colleges
- It provides programs in Automotive, Electronics, Engineering, Horticulture, Sport and Recreation, Furnishing, Laboratory Skills, Food Processing Wine, Hospitality, General Construction
- TAFE Institute enrolls nearly 600 VETIS students plus 150 under Auspicing arrangements

Charges

Charges are by student contact hour at 80% of the TAFE recovery price: e.g. in 2002

- General Construction TAFE recovery price \$9.70, 80% \$7.80;
- Sport and Recreation TAFE Recovery price \$6.50, 80% \$5.20.

Administration costs, both professional and clerical: examples

- Preparation of VETIS Coordinator's handbook each year to help schools with the VETIS government guidelines
- On-line arrangements: applications, recording of absences, teacher comments, results mid year and end of year; deposits administration; Invoicing twice per year; Enrolments procedures,
- VETIS student inductions; Graduation certificates;
- Range of facilitation/negotiation meetings including with new students/programs intake for following year and progress meetings;
- Preparation and dissemination of MOUs;
- Arranging for Schools to deliver part of VETIS programs;
- Special services to schools from TAFE Institute
 - weekly Results and Absences database for schools to gain their individual student progress (teacher comments, and results);
 - a weekly electronic Bulletin Board on TAFE and Secondary College news items and updates on VETIS information - sent to every Secondary College in the region plus LLENs, VETIS cluster Coordinators (ECEf) and DE&T and to Career Counsellors and managers within TAFE Institute);
 - TAFE Institute is represented at each monthly VETIS Reference Group Meeting in the Frankston Mornington Peninsula and Bayside areas; Board of PVET and Bayside VETIS clusters;
 - TAFE Institute hosts regular VETIS Cluster Coordinators meeting each term for the 3 Clusters in the region to discuss TAFE Institute and School current delivery issues, planning arrangements and PD some of which TAFE Institute delivers.

Other issues raised by the TAFE for consideration

- SWL is supported by the ECEf. It has never been under the realm of the external RTO under VETIS arrangements—if the RTOs were to assess in the workplace there would be an additional cost.
- Quality and Pastoral attitudes: TAFE teachers have experience of young people from 15 years of age through Apprenticeships and pre-apprenticeships programs, particularly TAFE Tasters as well as VETIS students. TAFE offers a more adult and independent environment than schools and has staff experienced in industry.

Table 11 provides some examples of the costs of providing some VETIS programs and the funds received for providing those programs from government and from students.

Note that Table 11 does not include any estimate of student transport or the payment to the network organising SWL of \$10 per student

Large student numbers, specialist resources and school as RTO

A major issue for a school is the size of the class it has for a VETIS program. Table 11 includes an example for Information Technology. The class size is 20 at both Year 11 and 12, equal or above the average of other school learning areas. In the example there is only a moderate cost in including Information Technology in the schools offerings, on the assumption that:

- that the school has teachers qualified in Information Technology;
- that the school has appropriate equipment; and
- that the Information Technology class is substituted for some other Year 11 or 12 offering.

The school must pay to register as a RTO and comply with the Australian Quality Training Framework (AQTF). Establishing the school as a RTO is an administrative challenge for schools. There is considerable paper work required and hence teacher time. One school chose to employ a consultant for \$500 to prepare an application. One school reported that the administrative costs of being a RTO were excessive so it had shifted to purchasing training. But another school noted that running a VETIS program in the school is easier administratively than having the program off-site. For example, timetabling is much easier. Another school noted that considerable organisational work by teachers is undertaken out of hours, which indicates a subsidy by the teachers to the program.

If a school becomes a RTO there are implications for development for teachers, especially regarding assessment requirements. Some schools believe that their teachers have the expertise necessary to run VETIS but were frustrated by the fact that their qualifications were not recognised for VET delivery and assessment. Certificate 4 in Workplace Learning and Assessment is the minimum requirement to be an assessor.³

In the example for Information Technology in Table 11 the total cost of administering a program and professional development necessary for the school to have RTO status was estimated at \$2,500 per year level or a little over \$100 per student, partly offset by the small student fee of \$50.

Pre-existing facilities in one school allowed it to offer some programs—but it could not offer hospitality for which there was strong student demand. Establishing an industrial kitchen was not a possibility.

³ One school estimated the PD costs for the teachers involved as being between \$8 000 and \$14 000, though Certificate 4 is usually provided within profile funding by TAFEs.

Small student numbers and purchase from external RTO

If the group is quite small, or the school does not have the specialist teachers or specialist facilities it is necessary to purchase the training or the auspicing of the training from an external RTO.

Table 11 includes three examples of training purchased from an external RTO: for Automotive, Horticulture and Community Services. In every case the estimated additional costs to the school were well in excess of the revenues received from government. The shortfall was due to the government funding rate being well below the rate charged by the RTO. In some cases it was due to the hours funded by DET being less than the hours purchased from the RTO.

The gap was made up to a varying extent by fees charged to students. The fees paid in the examples range up to \$475 per annum for Horticulture. Even after the inclusion of fees the shortfall for Automotive and Horticulture averages over \$500 per student, to be found from other school revenues. The Community Services program is seen to just about break even after student fees are included. This seems to be due to a government price that is relatively high compared with the estimated TAFE charge shown in the example.

The examples shown may not fully reflect the cost of administration/management of the programs. Tables 9 and 10 show that the five schools offered at least seven programs each. The programs were usually offered in both Years 11 and 12 and in some cases also to Year 10 students.

In the example in Table 11 the cost of purchasing the Community Services training is given at 80 per cent of the TAFE recovery cost. It could be lower than this—schools indicated that private providers might on occasion be cheaper than a TAFE, which is required to charge not more than 80 per cent of the Recovery Price. The cost of VETIS from TAFE is seen by the schools to be high and some schools have offset this cost by undertaking selective elements of the course in conjunction with the TAFE.

Costs rather than pedagogical considerations may be the primary factor in the choice of provider. In some cases the question could be asked about the teaching method of the lower cost program and its appropriateness to the learning needs of the students: an example is of an Agricultural program being taken largely online. A related issue was the concern expressed by two schools that TAFEs were not as pastoral in their dealings with students as schools.

Student transport

Students cover the cost of travel privately and these are not shown in the examples in Table 11. For the rural secondary school, distance poses a significant problem for implementing VETIS. It is primarily the time lost while the students travel that is the major concern.

Provision of counselling, tracking and managed pathways

Schools devote a proportionately large amount of their counselling and mentoring time to students not achieving well at school. One factor helping with these costs in Victoria was the introduction of Managed Individual Pathways (MIPS) to support the progress of students in post compulsory education. MIPS include funds for tracking students after leaving school.

Funding for this was seen as adequate by the schools surveyed but seen as quite separate from issues to do with VETIS funding. However one school saw a connection between MIPS and VETIS in that VETIS is an alternative pathway, and MIPS provided an opportunity to assess the outcomes of participation in VETIS programs.

The establishment by the government in Victoria of the Local Learning and Employment Networks (LLEN), and associated closer collaboration between schools, was important but not seen to solve the problems confronted by the rural school in the provision of VETIS programs because the problem of distance remained.

Costs of SWL

Participation in structured workplace learning (SWL) is regarded as an essential part of VETIS though not all programs require it. Table 4 indicates that about 65 per cent of Victorian students in VETIS have organised SWL. In some cases students arrange their own work placement through part-time jobs. Organisation of work placement is very time consuming if carried out by individual schools. Support for most if not all the costs though is covered by cluster arrangements supported by ECEF.

The schools studied were members of cluster networks e.g. Peninsula Vocational Education & Training (PVET). PVET's area includes the towns of Frankston, Hastings and Mornington. Three permanent part-time co-ordinators arrange work placements for over 500 Year 10-12 students from 22 schools (Government, Catholic and Independent). Over 350 employers are available to provide work placements. Students undertake SWL in a range of industry areas such as manufacturing, retail and hospitality, usually during their school holiday breaks.

PVET was funded mainly by the ECEF and schools in addition pay \$10 per student. ECEF provides \$92,000 pa to PVET (out of a Victorian total of about \$3 million from the national total of nearly \$13.8 million).

Some issues for further consideration in relation to the costs of SWL are:

- the initiative for SWL rests largely with schools and PVET, not with any external RTO providing VETIS to a school;
- the external providers of the off-the-job training have not been funded to participate in SWL under VETIS arrangements;
- school teachers, *but not usually the external VET teachers*, try to visit students during their period of SWL; and
- the extent of assessment in the workplace in VETIS appears to be limited.

This separation of SWL from the provision of off-the-job training does not appear to be in keeping with the ideas underlying training packages and of assessment in the workplace. The effect on the quality of the programs needs to be further investigated.

Arrangements to offset costs

Release of teacher time

Where a school provided a program for a reasonably large class this was done by substituting that class for a regular Year 11 or 12 class. There was no addition to school class teaching costs. This is the basis for the estimate for Information Technology in Table 11. A teacher could be released from another subject to take the Information Technology program.

However; in most other cases, the running of small classes or the purchase of VETIS from external RTOs does not lead to the release of teachers from other classes. The high proportion of VETIS programs with 4 or less students as shown in Table 9 suggests that freeing up class teachers would be quite unusual.

As already noted there is also additional work for teachers such as visits to the work place and the time taken for administration and establishment of the programs.

Schools cooperating in delivery of VETIS off-the-job training

Schools acknowledged that where the VETIS has high capital costs, sharing the costs between schools makes sense. However there were difficulties in making these arrangements. For example, there was the question of accessibility for the rural school. Only one example of a program run at another secondary school is included in Tables 9 to 11.

Who bears the costs?

Fees paid by parents and students

As shown in Table 10 all the schools visited required fees to be paid by parents or students for VETIS programs:

- the median fee was \$300;
- over a third of the programs had student fees of \$400 or more; and
- over 10 per cent had fees of \$500 or more.

Many of the VETIS students come from lower income backgrounds (as suggested by the data in Table 5), the least able to pay the fees and the most likely to leave school early. This almost certainly affects access to the more expensive programs and school principals indicated their concern about this. Some schools cross-subsided the fees to ameliorate this problem.

For the private school, the costs of VETIS were considered as above the level that could be covered by the regular school fees. The school found it necessary to charge the students additional fees for VETIS rather than raise general school fees for all students.

Charges to schools by external RTOs

There are various systems of charging by TAFEs for the provision of VETIS. The Victorian government restricts TAFEs to charging not more than 80 per cent of the TAFE recovery prices (the rate they must repay if they fail to fill agreed profile places). Under the rules for

VETIS the students cannot be charged a tuition fee by the TAFE, though they can and are charged by the schools.

The funds received for VETIS by TAFEs are therefore less than they receive on average under profile funding. The TAFE's costs of delivery of VETIS may be higher than for similar TAFE courses provided under profile funding, not 20 per cent or more lower. The reason is the extensive list of administrative arrangements and services involved. These were indicated in Box 1.

On the other hand, some schools argued that TAFE was a relatively expensive provider and this was a factor in the engagement of private providers for a number of programs. Additionally, two schools observed that TAFE staff appeared reluctant to work with schools and undertook less pastoral care of students. TAFEs were seen to be more interested in recruiting students into TAFE than working with them in a school setting. As noted in Box 1, an alternative view is that TAFEs have long worked with young people and provide an adult atmosphere for students.

Employers contributions and costs of providing work placement

It was not possible to collect information on employer's costs of providing work placement. There is evidence in this case study of their support for the cluster group PVET, in providing work placements and in participation in awards for students.

Cost and funding options

Overview

The evidence from this study in Victoria suggests that schools are struggling to deal with the costs of providing VETIS. They have adopted a range of methods of provision including registering as RTOs, purchasing training from TAFE and from other RTOs, and sometimes combining with an external RTO in the provision of training.

The rural school, located away from other schools and from a large TAFE campus found it particularly difficult to provide VETIS. It had difficulty in finding on-going work placements.

The private school had difficulty-pooling resources with other schools, particularly in the government sector. Schools also noted that the requirements of the AQTF imposed heavy burdens of administration and professional development on them.

Structured workplace learning is regarded as vital for effective VETIS. Its provision is very largely dependent on the continuation of ECEF funding.

Schools provide VETIS to enhance the curriculum range. One of the objectives is to retain students at risk of not completing Year 12 or its equivalent, a concern of the National Goals and of the Victorian Premier's targets for education. Under current funding arrangements, schools find if necessary to charge often quite substantial fees for VETIS.

There was no clear indication from the school principals interviewed about how best to move forward, short of requesting more funds, for the fuller and more equitable provision of VETIS.

Some options for cutting costs

The operating costs to schools arise from teaching VETIS or purchasing the training, from administering the programs, compliance with AQTF and arranging SWL. Some areas for consideration are listed.

- *Individual schools could reduce the number of programs they offer*
 - This arrangement could enlarge the size of the group of students engaged in a VETIS program in a school (assuming that the reduction in offering did not lead students to abandon VETIS). If a group were of sufficient size then the VETIS subject could be substituted for another Year 11 or 12 offering and free some teacher time in the school.
 - This would reduce the options to students unless a school was able to arrange with neighbouring schools to specialise in particular programs, not an option in rural areas. (It was noted that it was difficult for the private school to establish partnerships with government schools for VETIS programs).
 - If training could be purchased *per group* of students from an RTO there would be a saving per student in a larger group. This would not be the case if the training were purchased from a TAFE on the basis of student contact hours.
- *Schools could purchase training from lower cost providers*
 - Some examples were given of private RTOs providing VETIS more cheaply than TAFE. Schools need little urging to investigate cheaper options. They may represent more efficient delivery but they also could have implications for quality if methods less appropriate for the VETIS student are used. There needs to be scrutiny of the teaching and learning taking place in VETIS, in all its locations.
- *Schools could economise on administration and PD*
 - Administering the programs and SWL, arranging to comply with AQTF or to purchase from a wide range of providers is a major cost for schools. This includes the professional development for teachers where the school is a RTO. The cluster arrangements notably through PVET and the substantial assistance from the Commonwealth through ECEF cover much of the costs of SWL. It is not obvious how the administration, professional development or SWL could be done more efficiently.

Student fees

Student fees have not been given much attention in previous studies of VETIS. They are substantial in Victoria. (As noted earlier this is not the case in, for example, New South Wales). A student who left school and enrolled in TAFE would pay about a third the fee that is required for VETIS and may be eligible for exemption from part or all of that fee if from a low-income background. There is no similar provision for fee exemption for VETIS.

At the same time TAFE institutions are not gaining the revenue that they would receive if the VETIS students were funded under regular profile funding from the government.

The current method of organisation of VETIS makes the charging of student fees by schools a necessity. Schools felt that they had made strong efforts to ensure that VETIS fees were kept as low as possible for the students and their families and that there was little scope to further reduce them under the current arrangements.

The charging of substantial fees for VETIS, in government schools at least, is out of line with the national goals of giving all students access to VETIS and encouraging all students to complete Year 12 or the equivalent. It is also inconsistent with the Premier's targets for post compulsory education and training (DEET 2000), in particular to increase the percentage of young people who complete Year 12 or the equivalent, and to increase the level of participation and achievement in education and training in rural and regional Victoria.

Quality and pastoral care

Cost is only part of the concern. One of the issues in schools becoming RTOs is whether they can deliver VET programs of the same quality as TAFE and other RTOs. At the same time schools doubt that TAFE institutes can provide the pastoral care and mentoring that schools in a smaller and more custodial environment see themselves as able to deliver. These issues need to be addressed at the same time as alternative funding arrangements are being considered.

Another quality issue is whether the pursuit of lower cost training leads to teaching methods inappropriate for the lower achieving students who make up a considerable proportion of VETIS students.

The extent of integration of SWL with the off-the job component needs scrutiny. In the limited discussions possible in this study it did not appear that external RTOs have much involvement with SWL. This needs further investigation in the light of the intention of the reforms accompanying the introduction of Training Packages that training be assessed in a workplace environment.

Additional funding or a changed funding model

Increased public funding for schools is one solution but will not be readily adopted in the current fiscal environment.

Changes can be made to the funding model. The method of funding used in New South Wales avoids the problems of student fees evident in Victoria. The system in New South Wales, whereby enrolments in TAFE pro rata reduce school staff funding, has encouraged schools to increase their own provision rather than send students to TAFE, a matter that attracts varying views as to its effects on quality, the growth of local partnerships and the experience for the student.

A broad proposal for the funding of all post compulsory education is that funding should be attached to students and follow them pro rata wherever they are enrolled. This does not apply only to VETIS but to all post compulsory funding.

A major issue if such a scheme were adopted is to ensure that the funding for students at risk is sufficiently large that institutions enrolling them will be able to provide the programs and the mentoring and counselling that they need.

There are some particular issues for small schools and for rural schools with such a scheme of 'funds following the student'. The base funding of such schools would need to be sufficiently large to recognise the problems of maintaining a wide curriculum with small senior enrolments and the particular external factors including transport that increase their costs.

6. Summing up

The paper focuses on the costs of the provision of VETIS. To explore the cost issues the paper first provided an overview of VETIS and its provision across States and Territories. This showed the substantial variation in how the programs are operating in terms of the proportion participating, hours of training, the proportions taking SWL, in the hours of SWL and in the industry areas in which training is provided.

VETIS is designed for all students but is taken disproportionately by those with lower levels of achievement. In 1998 37 per cent of students in the lowest achievement quartile in year 9 in 1995 had undertaken some VETIS compared with 13 per cent of those in the top quartile.

Not only do the levels of provision differ substantially across the States but, for example, VETIS is organised quite differently in NSW and Victoria. In Victoria most of the decisions on VETIS are made at the school level, including whether to become a RTO or to purchase training from an external RTO. Additional government funds are provided to support the school. In contrast in New South Wales it is the educational regions that become the RTO and the schools negotiate with them on provision of VETIS. Where school students attend TAFE the school's staffing budget is reduced pro-rata and the Education Department funds the TAFE for the delivery.

The paper reviewed the costs of government senior secondary schooling and the cost of publicly funded VET (i.e. TAFE). This shows that publicly funded senior secondary schooling is as expensive as publicly funded VET. The question that follows is: why should VETIS then cost more than other senior secondary schooling?

The answer lies largely in how VETIS is provided. These issues are explored in a case study in Victoria. VETIS in, for example, Information Technology could be provided (without SWL) in some schools for much the same cost as other senior secondary school learning areas. If the school is able to free teacher resources from some other subject area when introducing VETIS then there should not be a sizeable cost problem—at least with the direct teaching costs of VETIS. If however the school has to maintain its existing provision of classes while it loses resources to an external RTO or provides an additional Year 11 or 12 class then a cost problem arises.

Three quarters of VETIS groups in the Victorian case study had less than 10 students. Schools had to provide for small groups or purchase the training from external providers. Some examples are presented of the costs involved and the government revenues for several VETIS programs. In every case the costs exceed the government revenues and the schools make up part of the gap by charging additional fees to the VETIS students.

Cost is only part of the concern. One of the issues is whether schools can deliver VET programs to the same quality as TAFE and other RTOs. Schools doubt that TAFE institutes can provide the pastoral care and mentoring that schools in a smaller and more custodial environment see themselves as able to deliver. Against this, TAFEs see themselves as offering a more adult environment, and one, which is more appropriate for some students. Another quality issue is whether the pursuit of lower cost training leads to teaching methods inappropriate for the lower achieving students who are the majority of VETIS students.

Student fees are substantial in Victoria. A student who left school and enrolled in TAFE would pay about a half to a third of the fee that is required for VETIS and could be eligible for exemption from most of the fee if they held a health card or were in receipt of the youth allowance.

The possible policy solutions to the cost problems were canvassed. These include reducing the number of programs to enlarge the size of the group of students engaged in a VETIS program. This would reduce the options available to students unless a school were able to arrange with neighbouring schools to specialise in particular programs—not an option in rural areas.

Similarly there might be a case to limit SWL. However if the provision of a range of VETIS options for students is considered important especially for those at risk of early leaving, then VETIS may continue to give rise to additional costs *for some if not many schools*. There may be a case for this to become an element of school budgets especially for rural schools and those with low retention rates

Changes can be made to the funding model. The method of funding used in New South Wales avoids the problems of student fees evident in Victoria. The system in New South Wales, whereby VETIS enrolments in TAFE pro rata reduce school staff funding, has encouraged schools to increase their own provision rather than send students to TAFE, a matter that attracts varying views as to its effects on quality.

A broad proposal for the funding of all post compulsory education is that funding should be attached to students and follow them pro rata wherever they are enrolled. This does not apply only to VETIS but to all post compulsory funding. There are however some particular issues for small schools and for rural schools with a scheme of 'funds following the student'. Such schools may need additional help for VETIS and for programs designed to assist students most at risk of poor levels of learning and early leaving.

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Appendix: Costs of VETIS and key learning areas in senior secondary schooling

The costs of VET in schools in Victoria were examined in a detailed study by Bluer, R, Burke, G, Grauze, A, Nunn, J & Shah C 1997, *Costs of delivery of VCE programs, including Dual Recognition in schools*, Report to the Department of Education, Victoria and some aspects of this further explored in Shah, C 1998, Recurrent teacher cost per student by key learning area: Upper secondary schools, Victoria, Australia, *Education Economics*, Vol 6, pp 121-139.

Where the school delivered VETIS the costs were considered in two parts. Direct Teacher Cost and Other Costs

Direct teacher cost

A model was developed to estimate the direct teacher cost per student at the class level. The key factors identified as affecting cost per student in a class were:

- class size;
- salary of the teacher; and
- the proportion of the teacher's working hours devoted to teaching that class.

Table A1 shows the data on class size and teacher time. (Salary differences were not a large element I cost differences across areas). Class size was found to vary by key learning area. Languages other than English (LOTE) classes had about 10 students on average, Arts and VETIS about 15, Mathematics 18 and English, the highest average at nearly 19.

The class size differences are the major factor underlying the cost differences shown in Table A2. though the small number of hours devoted to VETIS reduced its costs. Note that a small follow up study in early 1997 suggested that the hours devoted to VETIS per week were closer to the average of 3.7 per week. Class sizes were larger where total Year 11 and 12 enrolments were larger. This is the major reason for the declining cost per student in each learning area predicted to occur as the size of the school enrolments in Years 11 and 12 increases, shown in Table A2.

There was a small variation in teachers' salaries across key learning areas. Salaries received by LOTE, English and Health teachers were below average. Salaries for teachers of Mathematics and VETIS were slightly above average.

Table A1 Some comparisons of key learning areas and VETIS, Government year 11 and 12 classes, Victoria 1996

<i>Key Learning Area</i>	<i>Average Class Size</i>	<i>Average Timetabled Hours per Week Spent by Teacher on a Class</i>	<i>Average Non-timetabled Hours per Week Spent by Teacher on a Class</i>
Arts	14.8	3.7	4.6
English	18.9	3.8	6.4
Health	16.8	3.7	5.5
LOTE	10.4	3.6	6.8
Maths	18.0	3.6	4.7
Science	16.7	3.7	5.3
SOSE	17.0	3.7	4.3
Technology	16.0	3.7	3.8
VETIS	14.5	2.9	3.4
All	16.8	3.7	4.9

More important than variation in salary was variation in **teachers' working hours** devoted to the different key learning areas. This information was gathered by a survey of VCE teachers. The distribution is shown in Table A1.

The average *timetabled* hours per week allotted to a class showed little variation across key learning areas, except for VET-in-school. The average for VET-in-school classes in 1996 was significantly lower than that for classes in other learning areas. This was a rather surprising finding and might be related to the time that VET in school students were on work placement or to part of the VET unit being taught by TAFE teachers. Additional data collected early in 1997 showed that the average weekly hours for VETIS classes were similar to that in other key learning areas *in 1997*.

The study also considered *non-timetabled* work related to the delivery of classes in each key learning area. There was significant variation across key learning areas. The average *non-timetabled* hours per class reported was high for LOTE and English classes and low for Maths and VETIS. One factor in this was that females, who are the majority of teachers in LOTE and English, reported proportionately more of their time to support for their teaching than males.

Table A2 shows the average annual direct teaching cost per student in key learning areas and by size of the total Year 11 and 12 enrolment.

Table A2 Predicted average teacher cost per student per year by Year 11 and 12 enrolment & by Key Learning Area, Government schools, Victoria 1996 \$

<i>Year 11 and 12 Enrolments</i>	<i>Key Learning Area</i>								
	<i>Arts</i>	<i>English</i>	<i>Health</i>	<i>LOTE</i>	<i>Maths</i>	<i>Science</i>	<i>SOSE</i>	<i>Technology</i>	<i>VET-in-school</i>
	\$	\$	\$	\$	\$	\$	\$	\$	\$
100	765	669	701	1260	577	693	625	675	598
200	620	543	569	1022	468	562	507	547	485
400	503	440	461	829	379	456	411	444	393
600	445	389	408	733	336	403	364	393	348

Notes: Average hours per week were 3.7 per subject for approximately 40 weeks.

For VET units delivered in schools the relatively low number of teacher hours devoted to classes in 1996 offset the small class size and slightly higher teacher salaries. The result is that the direct teacher cost per student was about 5 per cent below the average for all learning areas, with only mathematics at lower cost. However, on the basis of the data obtained early in 1997, it was tentatively concluded that average cost per student for VETIS classes in 1997 was a little higher than in 1996.

Other costs to the school

Table A3 provides examples of the identified costs in four schools of additional costs, to the schools, in the organisation of Dual Recognition Programs. The estimates can be considered as low, since, as discussed, many costs could not be separately identified.

The additional costs in Case 1 were very small and mainly due to registration as a private provider, which will not be required in 1997. This was a case of a school providing a program that could be taught within the school and where no work placement was required. Cases 2 to 4 involved additional costs rising to over \$300 per Dual Recognition student. This represents cost to the school only, and in Case 2 and Case 4 considerable costs of provision and coordination are borne by other bodies as discussed below.

The costs of coordination are an estimate of the time of the Dual Recognition coordinator and do not include costs for the Principal or school office. In these examples schools did not identify costs for material and equipment other than those covered by usual student fees or covered by student payment to TAFE. It should be noted that in these particular four cases in 1996 the school made no payment to TAFE or to Group Training companies. In a case (not included in Table A3) where a school did make payment the charge was low - \$25 per hour of teaching delivered which is equal only to the minimum teaching cost per hour for a sessional teacher in TAFE.

In 1997 schools will be making payments for VET units delivered by TAFE. The payments for professional development are the identified days spent on programs related to VETIS and

do not necessarily reflect the level of professional development required to ensure quality in delivery.

Table A3. Identified costs to a school of VETIS *excluding* direct teacher cost: examples for Victoria 1996, \$

	<i>Number of students</i>	<i>Additional administration & coordination, teacher travel \$</i>	<i>Additional materials & equipment</i>	<i>Additional professional development</i>	<i>Private provider registration.</i>	<i>Payment to TAFE or other provider</i>	<i>Total</i>	<i>Cost per student</i>
		\$	\$	\$	\$	\$	\$	\$
School as private provider (one program, no work placement)	20	nil	nil	400	500	nil	900	45
School with intermediary broker (two programs with work placement)	31	8,700	nil	400	nil	nil	9,100	294
School as private provider (two programs, one with work placement) and with TAFE (four programs, two with work placement)	60	8,358	nil	3000	700	nil	12,059	201
School with TAFE (one program) and Group Training (three programs with work placement)	35	10,448	nil	600	nil	nil	11,048	316

Note: excludes direct teacher cost. If the delivery of VET units by TAFE or Group Training means a release of teacher time within the school this could mean a partial offset to the costs shown in this table (except in Case 1). In most cases the delivery by TAFE does not mean a reduction in teacher commitments within the school but the matter needs further study. Teacher development costed approximately at \$200 (\$148 per day replacement plus \$52 travel).